

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: ) Group Art Unit: 2162  
David L Multer et al ) Examiner: Alam, Shahid Al  
Application No.: 09/491,675 )  
Filed: January 26, 2000 )  
For: **DATA TRANSFER AND** )  
**SYNCHRONIZATION SYSTEM** )  
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**REPLY BRIEF IN RESPONSE TO  
EXAMINER'S ANSWER**

Sir:

In reply to the Examiner's Answer mailed on March 30, 2009, this Reply Brief is hereby submitted to the Board of Patent Appeals and Interferences in compliance with the requirements of 37 C.F.R. § 41.41. Claims 49-53, 55-61, 63, 65-70 and 72-75 (including the independent claims 49, 61 and 66) have been rejected.

Appellants contend that the rejection of Claims 49-53, 55-61, 63, 65-70 and 72-75 is in error and should be overcome by the appeal in the application referenced above. Specifically, the rejection of 49-53, 55-61, 63, 65-70 and 72-75 based on 35 U.S.C. §102 is improper. In view of the foregoing, Appellants respectfully submit this Reply Brief, wherein:

the **STATUS OF THE CLAIMS**, begins on page 2;  
the **GROUNDS FOR REJECTION**, begin on page 3; and  
**ARGUMENTS**, begin on page 4 of this paper.

**STATUS OF THE CLAIMS**

Claims 49-53, 55-61, 63, 65-70 and 72-75 are pending in this case.

Claims 49-53, 55-61, 63, 65-70 and 72-75 stand rejected under 35 U.S.C. § 102 as being anticipated by U.S. Patent No. 5,710,922 to Alley et al. (hereinafter Alley).

Within the Appeal Brief, Claims 49-53, 55-61, 63, 65-70 and 72-75 are appealed.

**GROUNDS OF REJECTION AND MATTERS TO BE REVIEWED ON APPEAL**

The following issues were presented in the Appeal Brief for review by the Board of Patent Appeals and Interferences:

1. Whether claims 49-53, 55-61, 63, 65-70 and 72-75 are properly rejected under 35 U.S.C. § 102 as being anticipated by Alley.

**ARGUMENT**

**I. SUMMARY OF THE CLAIMED INVENTION**

The invention disclosed in the present application number 09/491,675 is directed to a system for synchronizing information between different remote devices each possibly operating with data in a different proprietary data format. According to embodiments of the present invention, each such device includes a software device engine specific to that device. For example, a cellular telephone includes a dedicated cellular device engine, a personal digital assistant ("PDA") includes a dedicated PDA device engine. The respective device engines provide an interface capable of translating proprietary data from the associated device into a universal data format. Once converted into a universal format, the data is compared to a prior stored version of the data in the universal format to generate universal differencing information. This universal differencing information represents changes between current version of the universal format data and a prior version of the universal data format. Only the differencing information is then propagated to the remote networked devices to maintain synchronization between the devices.

Some of the claims being appealed include a limitation of a network for coupling the first file system and the second file system to allow communication between the first file system and the second file system when the first and second file systems are physically remote from each other. Some of the claims being appealed include a limitation of a comparison against a prior version of information. Some of the claims being appealed include a limitation of conversion to a universal format. As is discussed in detail below, the cited references do not disclose, teach, or even suggest these limitations.

## II. THE CITED REFERENCE DOES NOT DISCLOSE, TEACH, OR EVEN SUGGEST EACH AND EVERY ELEMENT OF THE CLAIMS

Appellants respectfully submit that the cited reference, Alley, simply does not disclose, teach, or even suggest a network for coupling the first file system and the second file system to allow communication between the first file system and the second file system when the first and second file systems are physically remote from each other.

### Claims 49-53 and 55-60: Alley Requires Physical Docking

Alley discloses synching a “local” computer to a “remote” computer when the remote computer is docked to the local computer. In particular, as described at Col. 7, line 51 through Col. 10, line 17, in order to synch a remote computer to a local computer, the local computer includes a docking interface allowing the remote computer to be docked thereto. If the local and remote computers are not compatible, then the docking operation is terminated and no synch is possible. (Col. 9, lines 42-46). If the systems are compatible, then the remote computer is synched to the local computer. The synching process is time based. As explained in the reference:

Initially in step 142, the dock sends a message to the remote which indicates the last time that the remote was synchronized by that particular dock. The time of the last synchronization is sent in order to determine which entries need to be updated. As indicated above, when an entry is revised, the revision time is entered as part of the data entry. This permits the synchronization to be time based. That is, only the records that have been added, deleted or revised since the last synchronization need to be revised. By maintaining a time-based backup system, multiple docks can be used to synchronize the information stored on a particular remote, which may be desirable for a variety of reasons. (Alley, col. 10, lines 19-31)

Within the Examiner’s Reply, the Examiner appears to finally address the point that Alley does not teach a network for coupling the first file system and the second file system to allow communication between the first file system and the second file system when the first and second file systems are physically remote from each other. However, the Examiner is reading more into Alley than what is taught. Within the Examiner’s Reply, Alley is cited as teaching:

a remote/local docking system 72 in accordance with the present invention is illustrated in block diagram form with the data transfer routes shown in arrows. The system 72 includes a remote system 74 (such as the aforementioned pen-based computer 10) and a local system 76 (such as a Macintosh computer system). The remote system 74 includes a docker interface 78, which is a

relatively compact piece of code running on system 74 which allows the remote system to communicate with a larger docker application 80 running on the local system 76. The docker interface 78 is conveniently stored within the "drawer" of the system 10 described previously, and is activated by opening the drawer with the drawer button 65 and "clicking" on its icon with stylus 38. As can be seen in FIG. 3, the communication between docker interface 78 and docker application 80 is preferably bidirectional, as indicated by arrow 82. The docker application communicates bi-directionally with a synchronization or "sync" file 84 as indicated by arrow 86. The docker application also communicates with an archive file 88 so that data may be sent from the synchronization file 84 to the archive file 88 as indicated by a unidirectional arrow 90. (Alley, col. 7, line 64 through col. 8, line 18)

Within the Examiner's Reply, the Examiner bolded "pen-based computer." It appears by the bolding of the pen-based computer in the Examiner's Reply, that the Examiner views that since the pen-based computer is referred to as a remote system, that this sufficiently teaches the claimed invention. However, the claimed invention clearly teaches a network for coupling the first file system and the second file system to allow communication between the first file system and the second file system when the first and second file systems are physically remote from each other. Alley clearly and throughout discloses that the pen-based computer system is synched with the desktop computer **only when the pen-based computer is docked to the desk top computer.** There is no disclosure, teaching or suggestion in Alley of a system where two computing devices may be synched when they are not physically coupled and are remote from each other.

Without such disclosure, it is respectfully submitted that Alley cannot form an anticipation of Claim 49, and Claims 50-53 and 55-60 dependent thereon.

Claims 51-53, 61, 63, 65-70 and 72: Synchronization by Universal Differencing Data

In addition to the above, a further distinction between the present invention as recited in various forms in Claims 51-53, 61, 63, 65-70 and 72 and the cited reference is the nature of the synchronization process and the differencing data used for the synchronization process. Alley does not disclose, teach or suggest a system as in the present invention whereby application specific data is first converted to a universal format, and then this universal format data is used for a comparison against a stored prior version of the data. This feature is discussed in Appellants' specification at page 20, line 7 through page 22, line 2. Converting the application data to a universal format overcomes the problem of synching application data that may be in different formats. The Examiner still has not addressed this argument, and in fact Alley has no

disclosure teaching or suggestion of a system where application data is first converted to a universal format, and the universal format data is used for a comparison against a stored prior version of the data.

In fact, Alley expressly discloses that where data is incompatible, the synch operation is impossible and is terminated:

When communication between the dock and the host is initiated, the local logic first determines whether the systems are compatible in step 132. If not, a dialog box indicating that the systems are not compatible is displayed in step 133 and the docking function is terminated. This determination is made based on the information that is received from the remote in its original connection request. Specifically, in the original connection request, the remote transmits information indicative of the system protocol version. When this information is received, the dock checks to determine whether it is using the same protocol version as (i.e., is capable of synchronizing with) the selected system. Step 132. If so, the logic proceeds to step 135, where it requests, and step 136, where it receives, the remote name and system information. (Alley, col. 9, lines 43-57)

If data is compatible in Alley, Alley simply takes all records which have changed since the last synch, as indicated by a time stamp, and transfers those records. There is no conversion to a universal format and there is no comparison against a prior version of information as claimed. The Examiner maintains that a comparison against a previous version of data does take place when the data from a first system to be updated is not a stored copy of the previous state of the data. Alley does not disclose or teach this feature. Alley merely discloses creating a synchronization list that includes records added/deleted on a first computer system, records added/deleted on a second computer system and then using the list to synchronize the first and computer systems. [Alley, col. 2, lines 55-67] As described though, Alley still does not teach a universal format and there is no comparison against a prior version of information as claimed.

The above-described features and distinctions of the present invention are recited in the claims. For example, Claim 51 recites:

The data synchronization system of claim 49 wherein each said data synchronizer comprises:  
a data source interface;  
a copy of a previous state of each said data source;  
a source data constructor applying difference information to said copy; and  
a difference information generator.

Alley has no disclosure, teaching or suggestion of a previous state of each data source, a data source constructor or a difference information generator.

Claim 52 recites:

The data synchronization system of claim 51 wherein each said difference information is transmitted from said first synchronizer to said second synchronizer in a universal format.

As described above, the present invention takes data from its application specific, proprietary format, and converts it into a universal format. Alley has no disclosure, teaching or suggestion of a universal format. This aspect again has not been addressed by the Examiner.

Claim 53 recites:

The data synchronization system of claim 51 wherein said synchronizer includes a plurality of difference source interfaces, each corresponding to a data source format.

As described above, Alley does not work with different data formats, and has no disclosure, teaching or suggestion of working with different data formats.

Claim 61 recites in part:

A data synchronization system, comprising: ...

a first system having a plurality of data file types;

a differencing synchronizer on the first system extracting a first set of differencing data from the data files on the first system when the data files on the system are changed, outputting the differencing data to the server, and retrieving differencing data from the server and applying it to selected data files on the first system;

at least one second system having a second plurality of data file types; and

a differencing synchronizer on the second system extracting the differencing data from the data files on the second system when the data files on the system are changed, outputting the differencing data to the server via the network, and retrieving the first set of differencing data from the server via the network and applying it to selected data files on the second system.

As described above, Alley does not work with different data file types. Also, Alley does not disclose, teach or suggest outputting and retrieving differencing data to a server. As set forth above, Alley only discloses the transfer of information between two systems that are directly docked to each other.

Claim 66 recites:

A method for synchronizing at least a first file and a second file resident on a first and a second systems, respectively, comprising:

- (a) determining difference data resulting from changes to a first file on the first system;
- (b) transmitting the difference information to a remote second system via a network;
- (c) applying the difference information to generate change data for the second file; and
- (d) updating the second file on the second system with the difference data.

Alley has no disclosure, teaching or suggestion of determining difference data resulting from changes to a first file, transmitting the difference information to a remote second system via a network, applying the difference information to generate change data for the second file and updating the second file on the second system with the difference data.

Claim 67 recites:

The method of claim 66 wherein said step of determining comprises:  
comparing data from the first file to a copy of a previous state of data from the first file.

Alley has no disclosure, teaching or suggestion of comparing data from a first file to a copy of a previous state of data from the first file. The Examiner indicated that a comparison of data against a previous version does take place when the data from a first system is compared against the data existing in the system to be updated. However, the data on the system to be updated is not “a copy of the previous state from the first file.” This feature is not disclosed in Alley.

Claim 68 recites:

The method of claim 67 wherein said comparing step comprises extracting data from said first file, converting said data to a universal file format, providing said copy of said data in said universal format, and comparing said data and said copy to provide difference data in said universal format.

As described above, Alley has no disclosure, teaching or suggestion of a universal format.

Claim 69 recites:

The method of claim 68 wherein said step of applying comprises:  
constructing new file data for said second file in said universal data format.

Alley does not disclose a universal data format.

Claim 70 recites:

The method of claim 69 wherein said step of updating comprises translating said  
new file into a format of said second file.

Alley does not disclose translating file data into different formats.

Claims 72-75 depend on the independent Claim 66 which as described above is  
allowable, thus Claims 72-75 are allowable as being dependent on an allowable base claim.

Again, the omission of any claimed element, no matter how insubstantial, is grounds for  
traversing a rejection based on § 102. As the cited reference has no disclosure of the above  
discussed features of the claimed invention, and does not attempt to address the problem  
addressed by the present invention, it is respectfully submitted that the present invention is  
patentable over the cited reference.

### III. CONCLUSION

Some of the claims being appealed include a limitation of a network for coupling the first file system and the second file system to allow communication between the first file system and the second file system when the first and second file systems are physically remote from each other. Some of the claims being appealed include a limitation of a comparison against a prior version of information. Some of the claims being appealed include a limitation of conversion to a universal format. As discussed in detail above, the cited references do not disclose, teach, or even suggest these limitations. In view of the foregoing, it is respectfully submitted that Claims 49-53, 55-61, 63, 65-70 and 72-75 (including the independent claims 49, 61 and 66) are allowable over the teachings of the cited references. Therefore, review of this appeal and a favorable indication is respectfully requested.

Respectfully submitted,  
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Dated: May 21, 2009

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